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(71) Applicant *(for all designated States except US)*: JIM LINDSAY. LIMITED [GB/GB]; 13 Hill Street, Ardrossan KA22 8HE (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: LINDSAY, James [GB/GB]; 25 Ardrossan Road, Saltcoats KA21 5BP (GB). ROBINSON, George, Walter [GB/GB]; 15 Shire Avenue, Spalding PE11 1FN (GB).

(74) Agent: MURGITROYD & COMPANY; 373 Scotland Street, Glasgow G5 8QA (GB).

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(54) Title: METHOD AND APPARATUS FOR SPRAYING

(57) Abstract

A low volume–low pressure spray gun (10) for spraying a fluid has a housing (12), a gas input (16), a trigger valve mechanism, and a nozzle (14). The gun (10) has lower and upper air passages (38, 39) which connect the gas input (16) to the trigger valve mechanism (23), and the trigger valve mechanism to the nozzle (14), respectively. The upper passage (39) is offset from the lower passage (38) and is substantially conical in shape, the layout of the passages (38, 39) producing a gas vortex in the upper passage (39) which creates a gas acceleration to compensate for the low pressure of the gas entering the gas input (16). The trigger valve mechanism comprises a piston valve (23), a liquid control needle valve (22), and a trigger (40). The piston valve (23) may include inner and outer apertured sleeves (26a, 26b), the sleeves being co–axial with the inner sleeve (26a) located inside the outer sleeve (26b). The inner sleeve (26a) is rotatably adjustable relative to the outer sleeve (26b) so that the apertures (61, 62) of the sleeves (26a, 26b) may be aligned, partially aligned, or closed, thus permitting adjustment of the gas vortex.